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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/753,392	01/09/2004	Mauro Zona	Q78899	6109

23373 7590 09/08/2006
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EXAMINER

JOHNSON, VICKY A

ART UNIT PAPER NUMBER

3682

DATE MAILED: 09/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/753,392

Applicant(s)

ZONA, MAURO

Examiner

Vicky A. Johnson

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 21 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on July 19, 2006 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 2, 4-8, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarifé (US 4,741,726) in view of Zeldman et al (US 3,878,734) and Kozachevsky et al (US 4,799,919).

Zarifé discloses a toothed transmission belt (10), comprising a metal core coated with elastomer material, wherein said metal core comprises at least two mutually parallel and spaced apart metal strips (23), substantially coplanar to each other, arranged in the longitudinal direction of the belt (see Fig 3), and a plurality of metal cross-members (26), distributed according to a constant pitch in the longitudinal

direction of the belt, which rigidly connect the two metal strips to each other and each whereof constitutes the core of a respective tooth of the toothed belt (see Fig 3).

Zarifé discloses a toothed transmission belt as described above but does not disclose the metal cross members each directly connected to both metal strips.

Zeldman et al teaches to attach the metal cross members (30) each directly connected to both metal strips (28).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the belt of Zarifé by attaching the cross members to the strips as taught by Zeldman et al in order to further strengthen the belt.

Zarifé discloses a toothed transmission belt as described above but does not disclose each of the metal cross-members having a cross-section whose shape defines the shape of the cross-section of the respective tooth, and an elastic material constituting a coating applied on the outer surface of the metal cross-members.

Kozachevsky et al teach the use of metal cross-members having a cross-section whose shape defines the shape of the cross-section of the respective tooth, and an elastic material constituting a coating applied on the outer surface of the metal cross-members (see Fig 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the belt of Zarifé to include metal cross-members having a cross-section whose shape defines the shape of the cross-section of the respective tooth as taught by Kozachevsky et al in order to provide higher rigidity to the belt.

Re claim 2, Zarifé shows each cross-member of the aforesaid metal core, and consequently each tooth of the toothed transmission belt has a trapeze-shaped cross section (see Fig 3).

Re claim 4, Zarifé shows each cross member is constituted by a hollow section bar (see Fig 3).

Re claim 5, Zarifé shows the metal sheet constituting each cross member has slots traversed by the aforesaid metal strips (see Fig 3).

Re claims 4 and 6, the method of forming the device is not germane to the patentability of the device itself, and the bending operation and welding have not been given patentable weight, therefore Zarifé shows the metal strips are attached to the cores (26) through the elastomeric material (16).

Re claim 7, Zarifé shows each cross member of the metal core and consequently each tooth of the toothed transmission belt has a trapeze-shaped cross-section also in a plane that is orthogonal to the longitudinal direction of the belt, with the end surface of each tooth positioned in mutually converging inclined planes (see Figs 2 and 3).

Re claim 8, Zarifé shows the toothed surface of the belt has a layer of adhesion-proof coating over the rubber coating (col. 5 lines 21-31).

4. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Zarifé (US 4,741,726) in view of Zeldman et al (US 3,878,734), Kozachevsky et al (US 4,799,919), and Takano (US 4,493,681).

Zarifé discloses the device as described above, but does not disclose each cross member of the metal core is constituted by a solid section metal bar.

Takano teaches each cross member of the metal core is constituted by a solid section metal bar.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Zarifé by having the metal core be a solid element as taught by Takano in order to extend the life of the belt.

5. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zarifé (US 4,741,726) in view of Zeldman et al (US 3,878,734), Kozachevsky et al (US 4,799,919), and Milton (US 5,417,617).

Zarifé discloses the device as described above, but does not disclose a gear wheel meshing with said toothed belt

Milton discloses a gear wheel (10) meshing with said toothed belt, wherein said wheel has a plurality of peripheral teeth (26) alternating with cavities (28) and two end flanges (22, 24) which constitute the ends of the cavities (see Fig 2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Zarifé to include the gear wheel as taught by Milton in order to reduce cost (col. 1 lines 15-23).

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Re claim 10, said end flanges of the gear wheel have a circumferential distribution of windows (44) corresponding to the ends of the cavities between the teeth of the gear wheel, to prevent a contact between the inner surfaces of said flanges and the end surfaces of the teeth of the toothed transmission belt.

Response to Arguments

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vicky A. Johnson whose telephone number is (571) 272-7106. The examiner can normally be reached on Monday-Friday (7:00a-3:30p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on (571) 272-6217. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Vicky A. Johnson
Primary Examiner
Art Unit 3682

9/3/06